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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,616	03/31/2004	Anthony David King Smith	61282-071	3817

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600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

CHEN, ALAN S

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)	
10/813,616	SMITH, ANTHONY DAVID KING	
Examiner	Art Unit	
Alan S. Chen	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3,5,6,9-13 and 15-17 is/are allowed.
- 6) ☒ Claim(s) 1,4,18 and 19 is/are rejected.
- 7) ☒ Claim(s) 7,8 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/31/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


3/19/06

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The use of the multiple trademarks such as CompactFlash, SmartMedia, Bluetooth, iBIZ, etc., has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

2. The disclosure is objected to because of the following informalities: misspelling of "CompactFlash" in line 15.

Appropriate correction is required.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "DRIVERLESS INTERFACING OF A REMOVABLE DEVICE WITH A DIGITAL PRODUCT".

Drawings

4. The drawings are objected to because Fig. 1 and 2 should include textual labels associated with numeric labels whenever possible for clarity. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

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should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Claims 7, 8 and 14 objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 7, 8 and 14 have not been further treated on the merits.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 4 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 4 recites the limitation "An accessory as claimed in" per line 1. There is insufficient antecedent basis for this limitation in the claim. Examiner assumes the claim is dependent on claim 3.

Claim 19 recites the limitation "A digital product as claimed in claim 16" per line 1. There is insufficient antecedent basis for this limitation in the claim. Claim 16 does not recite specifically a "digital product" or an "active function module" limitation as cited in claim 19. Examiner assumes claim 19 is dependent on claim 18.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1 and 18 are rejected under 35 USC 103(a) as being unpatentable over US Pat. Pub. No. 2004/0225796 to Hanson et al. (Hanson) in view of US Pat. No. 6,886,083 to Murakami.

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11. Per claim 1, Hanson discloses a slot-in accessory (*Figs. 2-5, element 160 is the accessory*) for a digital product (*Paragraphs 17 and 23 disclose the accessory device can be a FM tuner, camera, audio player, voice recorders, GPS etc.*) having a digital processor (*all the listed accessories are have active functions intrinsically requiring a processor*) with a file command structure (*cameras, voice recorders, etc. all generated files thus having a file structure*), a slot for receiving a removable memory device (*Figs. 2-5, element 150 is a slot specifically designed for SD memory card type devices*) and an interface for a removable storage device (*Figs. 2-5, element 130 is the SDIO module to interface with the SD card accessory, element 160*) whereby to access files stored on the storage device, at least a portion of the slot-in accessory being insertable into the storage device slot (*Fig. 3 shows card, element 160, must be in the interface module, element 130, before data can be transferred, the card being partially inserted*).

Hanson does not disclose expressly the specifics into how commands and data get passed between the accessory, interface and host devices, only referring to communication using known protocols such as SD and MMC. Hanson does not disclose expressly use of file system calls, and responses.

Murakami discloses a very similar system to Hanson, particularly having a SD card adapter, element 12 (*equivalent to the SDIO module of Hanson, element 130*) that is attached to a host, element 11 (*equivalent to the host in Hanson, element 120*) and interfacing the SD memory card, element 13 (*equivalent to element 160 in Hanson*). Murakami discloses communicating with the digital product (*Fig. 1, element 13, the SD card*) using file system calls and responses (*Fig. 9, element 113, file system commands*

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sent by the OS on the host, e.g., OS_read and OS_write), characterized in that the accessory has an active function operable in response to function commands (in this particular case, the read and write functions issued by the OS file system commands are acted upon by the SD card adapter, element 122) and means for translating file system calls received from the host (OS_read, OS_write commands are translated at element 122, the executing unit on the SD card adapter) into commands recognizable by the active function and responses from the active function into file system response to be sent to the digital product (SD_read and SD_write are what the OS file system commands previously mentioned are translated into and vice versa).

Hanson and Murakami are analogous art because they are from the same field of endeavor in interfacing SD devices using an adapter and have very similar computer and interface architectures.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to be able to use file system commands from the host to command the accessory of Hanson, where the SD interface module (*Hanson, element 130*) acts as the translation unit akin to the adapter of Murakami (*Fig. 9, element 12*).

The suggestion/motivation for doing so would have been to allow direct SD commands as well as file system access commands from the host to the SD card as suggested by Murakami, such that all areas of the SD devices, e.g., secure regions as well as regions accessible by anyone (*Murakami, Fig. 9, elements 131 and 132; Background of Invention*) in the SD accessory.

Therefore, it would have been obvious to combine Hanson with Murakami for the benefit of seamless access to all parts of the SD accessory.

12. Claim 18 is substantially similar to claim 1 and is therefore rejected accordingly to Hanson combined with Murakami.

Allowable Subject Matter

13. Claims 2,3,5,6,9-13,15-17 are allowed.

14. Claim 4 and 19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

15. The following is the statement of reasons for the indication of allowable subject matter: The prior art disclosed by the applicant and cited by the Examiner fail to teach or suggest, alone or in combination, ***all*** the limitations of the independent claim(s) (claims 1, 10, 15 and 18), particularly where the active function of the accessory devices are represented by apparent files (file names) on the host device. The functions on the accessory are mapped to file names so that when the file names are executed on the host device, the function executes on the accessory by command translation means on the accessory.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patents and patent related publications are cited in the Notice of References Cited (Form PTO-892) attached to this action to further show the state of

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the art with respect to peripheral devices and command translations between peripheral devices and their respective hosts.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S. Chen whose telephone number is 571-272-4143. The examiner can normally be reached on M-F 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim N. Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ASC
05/19/2006

Alan S. Chen
5/19/06